

IN THE DRAWINGS:

The attached drawing sheet denoted 3/6 reflects changes to FIG.8, namely the addition of reference numeral 12. The replacement drawing sheet replaces the original drawing sheet 3/6 containing FIG. 8.

**REMARKS**

The Final Office Action mailed January 12, 2006 has been received and reviewed. Claims 1-21 are pending and stand rejected. The Applicants submit that the specification, as well as the claims, are in condition for allowance for the reasons stated below.

**Rejection Of Specification Under 35 U.S.C. § 112**

The specification is objected to under U.S.C. § 112, first paragraph, as being non-enabling. The Examiner states that the specification does not disclose the centerline of at least one vane of the impeller being perpendicular to the central axis of the impeller as recited in claims 1 and 11. The rejection is traversed on the grounds that the specification provides a description and illustration of the vanes and centerline sufficient to enable one of skill in the art to make and use the invention as required by § 112.

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention. MPEP § 2164.01. The standard for determining whether the specification meets the enablement requirement was postured by the Supreme Court in *Mineral Separation v. Hyde*, 242 U.S. 261 (1916) as the question: is the experimentation needed to practice the invention undue or unreasonable. MPEP § 2164.01, citing also *In re Wands*, 858 F.2d 731 (Fed. Cir. 1988). In the present case, the limitation of a centerline which is perpendicular to the center axis is found in the specification as originally filed, and the description is sufficient for one of skill in the art to make and use the claimed invention, without any experimentation required.

Specifically, FIGS. 1-3 provide an illustration of a conventional prior art centrifugal pump (10), impeller (12) and vane (30). A written description of these

structures is contained in paragraphs [0026] through [0029]. The written description and FIGS. 1-3 further describe and illustrate that the impeller has a center (32), which those of skill in the art, as well as those not particularly skilled in the art, understand to be the central axis about which the impeller (12) rotates. FIGS. 1-3 and paragraphs [0028] and [0029] of the specification further illustrate and describe that the impeller (12) may be structured with a shroud (34) which, as illustrated in FIG. 2, is perpendicular to the axis of rotation of the impeller (12).

FIGS. 8-14 illustrate the various embodiments of the present invention where like parts, as is the convention, are identified by like references. In particular, paragraphs [0034] and [0035], as well as the remaining subsequent paragraphs of the specification, identify the vane (60) of the invention as having a shroud (34). Moreover, paragraph [0034], which describes a first embodiment of the invention illustrated in FIG. 8, states that "the radius  $R_v$  of the outwardly extending portion 66, as measured from the center 32 of the impeller 34 (sic, 12) to the outermost terminus 68 of the vane 60, is greater than the radius  $R_s$  of the shroud 34." FIG. 8 further illustrates a centerline (80) which is described in paragraph [0039]. From the foregoing illustration (i.e., FIG. 8) and description that was present in the specification as filed, it would be abundantly clear and unambiguous to one of skill in the art that the illustrated vane (60) of the impeller of the present invention has a centerline (80) which is parallel to the shroud (34) of the impeller and that the shroud (34) is perpendicular to the center (32) or axis of rotation of the impeller, thereby rendering the centerline (80) perpendicular to the central axis of the impeller. No experimentation would be required to draw that conclusion.

The Applicants respectfully submit that the specification, as filed, is fully enabling and meets the requirements of § 112 in enabling one of skill in the art to make and use the invention, and certainly without undue or unreasonable experimentation.

Rejection Of Claims 1-21 Under 35 U.S.C. § 112

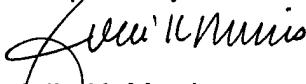
Claims 1-21 are rejected under 35 U.S.C. § 112, first paragraph, as being non-

enabling. The Examiner states that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and use the invention. The Applicants respond by referencing the arguments given above with respect to objection to the specification for the same reason, and reiterate that the specification was fully and unambiguously enabling at the time of filing such that one of skill in the art would be able to make and use the claimed invention without undue, or indeed any, experimentation. The Applicants respectfully submit that claims 1-21 meet the requirements of § 112.

**CONCLUSION**

In view of the arguments presented, the Applicants submit that claims 1-21 present patentable subject matter. Reconsideration and allowance are respectfully requested.

Respectfully submitted,



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Attached: Replacement Sheet (FIG.8)